

BOOK REVIEWS

RICHARD WILFORD. 2006. **Tulips: Species and Hybrids for the gardener.** (ISBN 13: 978-0-88192-763-4, hbk.). Timber Press Inc, 133 S.W. Second Avenue, Suite 450, Portland, OR 97204-3527, U.S.A. (**Orders:** www.timberpress.com, mail@timberpress.com, 503-227-2878, 1-800-327-5680, 503-227-3070 fax). \$34.95, 211 pp., 103 color photos, 2 b/w illustrations, 2 maps, 6¼" × 9¼".

Windmills, Dutch girl with a white hat over her blond pigtailed, a blue skirt, wooden shoes and TULIPS! Children's flower drawings often depict a cup shaped single flower on a straight stem with two long thin leaves—a tulip, the well known flower from the Netherlands? Hybrid tulips are the ones most of us know and love for springtime gardens and Easter gift giving.

The author, Richard Wilford, currently the Collections Manager at the Royal Botanic Gardens, Kew, responsible for alpines, bulbs and herbaceous perennials, introduces the reader to many *species* tulips.

Chapters include geography, the tulip plant, cultivation, history and classification and species descriptions. The subject of each chapter is thoroughly discussed leaving very little to the imagination.

Tulips are found growing in the wild on three continents—Asia, Europe and Africa. By trying to replicate the conditions found where the species are growing in the wild, gardeners in many parts of the world can have success with tulips. The ideal climactic conditions can be as diverse as the species. An environment that has cold winters, wet springs and dry summers is ideal for good bulb growth and flower production.

Tulip species are found from western Himalaya through the Caucasus Mountains, Iran, and Turkey and as far as the Iberian Peninsula. They are found in southern Siberia, west to Crete and northern Africa. They were introduced to Europe in the sixteenth century and their cultivation began among gardeners and botanists. Some tulips were scattered accidentally and readily became naturalized in areas where they are now erroneously considered natives.

The tulip plant characteristics are fully described by the author. The differences in the species flowers, leaves, and bulbs provide ongoing discussion among botanists as well as the naming and renaming of various plants. There is still confusion in the genus/species names.

Mr. Wilford mentions many botanists who were interested in classifying and describing the tulip—starting with Linnaeus. Swiss, French, German and Russian botanists—de Candolle, Reboule, Koch and Regel were involved in naming the species.

Cultivation—by bulbs and seeds is described by the author in great detail—from the types of pot and soil, to the watering and temperature best for growing tulips. Mr. Wilford considers planting the bulbs and/or seeds in pots as his preferred method. As the plants bloom and then go dormant, the pots are easily transported in the garden. Depending on your particular climate, watering is a constant concern. Too much water can cause soggy soil and rotting bulbs, too little water does not provide the moisture necessary to make new bulbs. Good drainage is essential for tulips. After you have read the chapter on cultivation, you will be an expert. Your neighbors will be astounded and envious!

In the chapter on species descriptions, Mr. Wilford provides a plethora of species descriptions with beautiful color photographs. You will be amazed at the variations in flower shapes and colors.

The garden hybrid tulips were bred in Persia and Turkey in the fifteenth and sixteenth centuries. In the past 400 years, Holland has made a name for itself in the hybridizing and purveying of tulips (bulbs and plants).

Tulips: species and hybrids for the gardener is a text full of information, for botanical explanation, exploration and practical gardening—and is a visual delight.—Ann Schrader, *Herbarium Volunteer, Botanical Research Institute of Texas, Fort Worth, TX, 76102-4060, U.S.A.*

CELESTINE L. DUNCAN and JANET K. CLARK (eds.). 2005. **Invasive Plants of Range and Wildlands and Their Environmental, Economic, and Societal Impacts.** ISBN 1-891276-42-5, pbk.). Weed Science Society of America, <http://www.wssa.net/>. (**Orders:** Weed Science Society of America, 810 10th Street, Lawrence, KS 66044-8897, U.S.A.). \$20.00, 222 pp., illustrated, 6" × 9".

This study assesses the economic and environmental losses caused by invasive plants on range and wildlife areas. The authors have focused on 16 key plants in the contiguous 48 states and estimate the current area infested by them. Fourteen of the species occur on range, pasture, or open woodland habitats while two occur in riparian or wetland habitats.

The sixteen species include: Russian knapweed, musk thistle, diffuse knapweed, yellow starthistle, spotted knapweed, Canada thistle, hawkweed, perennial pepperweed, leafy spurge, *Sericea lespedeza*, purple loosestrife, downy brome, medusahead, Dalmatian toadflax, tropical soda apple, and Tamarisk or saltcedar. Taxonomy, botanical characteristics, susceptible habitats, plant distribution, and spread and reproduction are summarized for each species.

Each species has its own chapter which summarizes eight categories of impacts, including: livestock and wildlife; plant communities; rare, sensitive, and threatened species; community function; soil and water resources; human health; economics; and value and use. An extensive 'Literature cited' section concludes each chapter.

Scientists, weed control specialists, resource planners and policy makers will welcome the comprehensive information provided in this valuable reference work.—Gary Jennings, *Library, Botanical Research Institute of Texas, Fort Worth, TX, 76102-4060, U.S.A.*